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|---|-------------|------------------------|------------------------------|------------------|
| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
| 10/660,955  | 09/11/2003  | Christopher J. Buehler | ITV-003 (9467/5)             | 6317             |
| 51414 7590 02/28/2007<br>GOODWIN PROCTER LLP<br>PATENT ADMINISTRATOR<br>EXCHANGE PLACE<br>BOSTON, MA 02109-2881 |             |                        | EXAMINER<br>PHILIPPE, GIMS S |                  |
|   |             |                        | ART UNIT                     | PAPER NUMBER     |
|   |             |                        | 2621                         |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE  |             | MAIL DATE              | DELIVERY MODE                |                  |
| 3 MONTHS  |             | 02/28/2007             | PAPER                        |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/660,955

**Applicant(s)**

BUEHLER, CHRISTOPHER J.

**Examiner**

Gims S. Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-18, 22, 25-29, 31-44, 48 and 53-55 is/are rejected.
- 7) ☒ Claim(s) 4, 19-21, 23, 24, 30, 45-47 and 49-52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____.  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2/11/04, 4/14/04, 7/26/04, 3/17/05, 4/21/05, 6/25/05, 01/13/06, 06/08/06, .

### **DETAILED ACTION**

This is a first office action in response to application no. 10/660,955 filed on September 11, 2003 in which claims 1-55 are presented for examination.

#### ***Claim Objections***

1. Claim 44 is objected to because of the following informalities: "r" after "further" must be deleted. Appropriate correction is required.

The applicant is urged to review the claims as well as the Specification in order to correct minor typographical errors.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-14, 18, 22, 25-29, 31-40, 44, 48, 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Sacks et al. (US Patent no. 4,739,401).

Regarding claims 1, 27 and 53, Sacks discloses the same system and method of image analysis comprising receiving first image for a plurality of first video frames representing

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a first scene, wherein each first video frame comprises a plurality of image regions and a first object is present in an image region of at least one first video frame (See Sacks col. 4, lines 21-28), receiving second image data for a plurality of second video frame representing a second scene, wherein each second video frame comprises a plurality of image regions and a second object is present in an image region of at least one second video frame (See Sacks col. 4, lines 29-42), and determining a relationship between first and second image regions of the plurality of image regions of the first and second video frames based on probabilistic correlation between occurrences of the first object being present in the first image region and occurrences of the second object being present in the second region (See Sacks col. 4, lines 62-68, col. 5, lines 1-9 and col. 7, lines 32-54).

As per claims 2 and 28, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further discloses the same system and method including the step of determining a conditional probability that the first object is present in the first object region given that the second object is present in the second image region (See Sacks col. 11, lines 30-64).

As per claims 3 and 29, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further determines a joint probability as seen in col. 11, lines 30-40).

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As per claims 5, 22, 31, and 48, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further determines a correlation coefficient associated with the first object being present in the first image region and the second object being present in the second image region (See Sacks col. 10, lines 55-62).

As per claims 6 and 32, providing different field of view while tracking a target is considered as inherent in Sacks' method as disclosed in col. 8, lines 19-33.

As per claims 7-8 and 33-34, the track handover logic 74 of fig. 2 will determine when to control the overlapping of the field of view.

As per claims 9-12, 35-38 and 54-55, the limitations of these claims have been noted in the above rejection of claim 1. In addition, object determination is performed in col. 4, lines 19-51.

As per claims 13 and 39, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further determines the temporal relationship between occurrences of the presence of the first object in the first image region and occurrence of the presence of the second object in the second image region (See Sacks col. 8, lines 3-18).

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As per claims 14 and 40, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further determines the spatial relationship between the first image region and the second image region (See Sacks col. 6, lines 13-22).

As per claims 18 and 44, most of the limitations of these claims have been noted in the above rejection of claim 1. In addition, Sacks further provides a plurality of attributes for objects (See Sacks col. 12, lines 22-37).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-17 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacks et al. (US Patent no. 4,739,401) in view of Yoo et al. (US Patent no. 6,668,094).

As per claims 15-17 and 41-43, most of the limitations of these claims have been noted in the above rejection of claim 1.

It is noted that Sacks is silent about counting the number of occurrences of the objects in the first and second image regions as specified in claims 15-17.

Yoo discloses a method of counting the number of occurrences of the objects in the first and second image regions (See Yoo col. 2, lines 32-44 and col. 4, lines 29-50).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Sacks' step of determining the relationship between first and second image by incorporating Yoo's method of counting the number of occurrences of the objects in the first and second image regions. The motivation for performing such a modification in Sacks is to detect similarities between the first and second images in order to assign a symbol having the largest occurrence probability is assigned a bit pattern with a least number of bits as taught by Yoo (See Yoo col. 4, lines 64-67).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang (US Patent no. 6687416) teaches method for determining a correlation between images using multi-element image descriptors.

Venkatesan et al. (US Patent no. 7095873) teaches watermarking via quantization of statistics of overlapping regions.

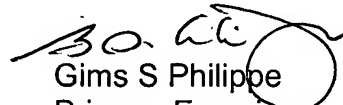


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (10:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dastouri Mehrdad can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Gims S Philippe  
Primary Examiner  
Art Unit 2621

GSP

February 24, 2007